

School Siting and Community Building

Tim Torma
U.S. Environmental Protection Agency
Office of Sustainable Communities
September 5, 2012



Goals of This Webinar

- Provide you with an introduction to and brief overview of EPA's voluntary school siting guidelines.
- Present you with a more thorough discussion on the relationship between school capital investments and a broad range of community goals.
- Share resources on these topics.



www.epa.gov/schools/siting/



LEARN THE ISSUES

SCIENCE & TECHNOLOGY

LAWS & REGULATIONS

ABOUT EPA

Advanced Search

A-7 Index

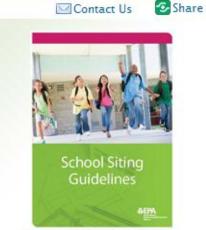
SEARCH

School Siting Guidelines



EPA's voluntary school siting guidelines can help local school districts (local education agencies or LEAs) and community members evaluate environmental factors to make the best possible school siting decisions. This website includes an overview for the guidelines, as well as links to resources and additional information.

- · Basic information about the guidelines
 - O What are the School Siting Guidelines?
 - O Why did EPA issue the guidelines?
 - O How can the guidelines be used?
 - O How can I get involved?
 - O How was the public involved in the development of the guidelines?
 - O What are the principles behind the guidelines?
- · Learn how to navigate the guidelines
- · View and print the guidelines
- · View frequently asked questions and answers
- · Related links to information and resources



View and Print the guidelines

Related information:

- Learn how to keep your school environment healthy
- Find links to other EPA programs for schools



Statutory Mandate

Energy Independence and Security Act of 2007 Sec. 502. Model Guidelines for Siting of School Facilities

The Administrator, in consultation with the Secretary of Education and the Secretary of Health and Human Services, shall issue voluntary school site selection guidelines that account for—

- (1) the special vulnerability of children to hazardous substances or pollution exposures in any case in which the potential for contamination at a potential school site exists;
- (2) modes of transportation available to students and staff;
- (3) the efficient use of energy; and
- (4) the potential use of a school at the site as an emergency shelter.





Context: State regulations are "all over the map."

- A 2006 study, funded by EPA and done by Rhode Island Legal Services, found that 23 states put no limits on building schools near environmental hazards.
- No regulations in those states compel school officials to consider such dangers when picking a spot to build.





Context

CONCERNS: Cleanup efforts aren't always complete / DEFENDERS: Students will be safe; land reused

New schools being built on contaminated sites

Posted by the Asbury Park Press on 02/20/05

BY JAMES W. PRADO ROBERTS AND <u>JASON METHOD</u> STAFF WRITERS

New Jersey plans to build multimillion-dollar schools on or near what are now contaminated properties — including at one federal Superfund site with radioactive soil — as part of its \$6 billion program to improve school buildings in the state's 31 poorest districts.

The Schools Construction Corp., which is overseeing the massive program in mostly urban areas, has purchased at least 22 contaminated or possibly contaminated sites, a review of state records shows.

SCC and state environmental officials say the sites will be cleaned or

Wren, a spokeswoman for the New York Department of Environmental Conservation.

Commissioner Campbell said New Jersey changed its cleanup standards because of the new information.

In the fall, state environmental officials compiled a list of 55 contaminated properties, and 38 more properties possibly contaminated, which are under consideration to become schools. Four were rejected.

Seebode said the DEP has not estimated cleanup costs because they must be paid for by the SCC.

Lenny Siegel, director of the California-based Center for Environmental Oversight, a nonpartisan activist group, also reviewed state DEP records of several sites for Gannett New Jersey.





Context

- The decision about where to locate a school is fundamentally local in nature.
- The EPA School Siting Guidelines are voluntary and do not preempt or serve as a substitute for state, tribal or local school site selection policies or requirements.
- These guidelines present recommendations on evaluating the environmental and public health risks and benefits of potential locations as part of the school siting process.



When can the guidelines be used?

The guidelines should be used before:

- Deciding whether to renovate an existing school, or build a new school on the current site or on a new site;
- Acquiring land for school facilities;
- Leasing space; and/or
- Renovating or reusing existing properties and structures already owned.

IMPORTANT: The guidelines are NOT designed for retroactive application. They are designed to inform and improve school siting decision-making from this point forward.

Overview of the Siting Guidelines



Meaningful Public Involvement

Before the Siting Process Begins

- Select Locations that Do Develop a Longrange School Not Increase Facilities Plan
- Consider Whether a New School is Needed
- Consider Whether a New School will be a High Performance/ Green School

Environmental Siting Criteria Considerations

Identify Desirable School Location Attributes

Consider **Environmental** Hazards

- Environmental Health or Safety Risks
- Locate Schools Near Populations and Infrastructure
- Consider Implications of the School Location on Transportation Options
- Plan For and Develop Safe Routes to Schools Programs that can Support Alternative Modes of Transportation
- Consider the Potential Use of the School as an Emergency Shelter

- Potential Onsite Hazards
- Potential Nearby Hazards
- Screening Locations for Potential Environmental Hazards

Environmental Review Process

Recommended **Environmental** Review Process **Evaluating Impacts** of Nearby Sources of Air Pollution

- Stage 1: Project Scoping/ Initial Screen of Candidate Sites
- Stage 2: Preliminary Environmental Assessment

If potential concerns are identified in Stage 2, additional assessment may be warranted

- Stage 3: Comprehensive Environmental Review
- Stage 4: Develop Sitespecific Mitigation/ Remediation Measures
- Stage 5: Implement Remedial/Mitigation Measure
- Stage 6: Long-term Stewardship

- Initial Assessment of Area Air Quality
- Inventory of Air Pollutant Sources and Emissions
- Screening Evaluation of Potential Air Quality
- Development of an Environmental Assessment Report



Baseline for Discussion

- Something we can all agree on: Schools should provide students with a safe, healthy place to get a good education.
 - This is their primary goal.
- But...having established that, we should also be asking what other goals school investments can support.





What's the connection between schools and community?

- Schools both affect and respond to community growth.
- Schools are a major financial investment that the entire community bears.
- Schools can either work with or against a wide variety of community goals.





School investments influence community goals.

- Children's health
- Fiscal health of local and state government
- Open space and farmland preservation
- Traffic congestion
- Environmental goals air quality, water quality, climate change
- Revitalization of downtown and existing neighborhoods
- Community character
- Social equity





The Demand for Facilities

- Over half of our school facilities are at least 40 years old.
- Over \$30 billion spent annually from 1995 to 2005 on K-12 school construction.
- 2008-09: More than 1,900 new schools, serving nearly 1.2 million children and costing more than \$13 billion.

GROWTH and DISPARITY

A Decade of U.S. Public School Construction







During the construction boom...

- In 1969, 48% of children 5 to 14 years of age usually walked or bicycled to school.
- In 2009, 13% of children 5 to 14 years of age usually walked or bicycled to school.
- In 1969, 41% of children in grades
 K–8 lived within one mile of school.
 - 89% of these children usually walked or bicycled to school.
- In 2009, 31% of children in grades
 K–8 lived within one mile of school.
 - 35% of these children usually walked or bicycled to school.

HOW CHILDREN GET TO SCHOOL

School Travel Patterns From 1969 to 2009

Prepared by the National Center for Safe Routes to School







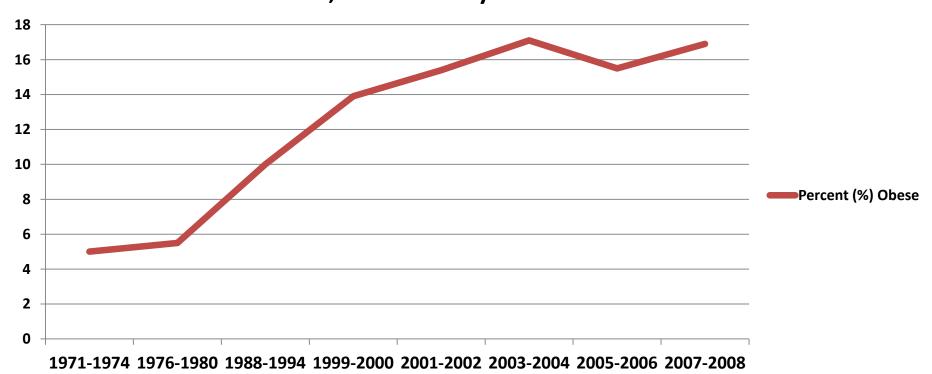






...and over the same time period

Prevalence of Obesity Among U.S. Children and Adolescents Aged 2-19, for selected years 1971-2008

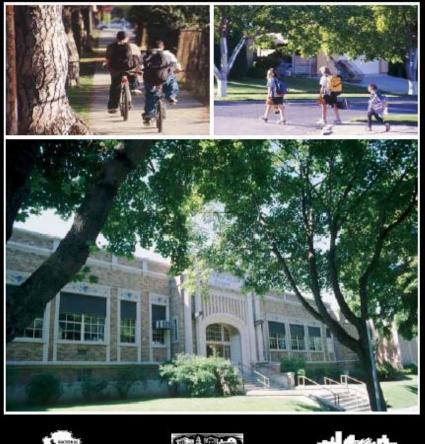


Source: Centers for Disease Control





Why Johnny Can't Walk to School





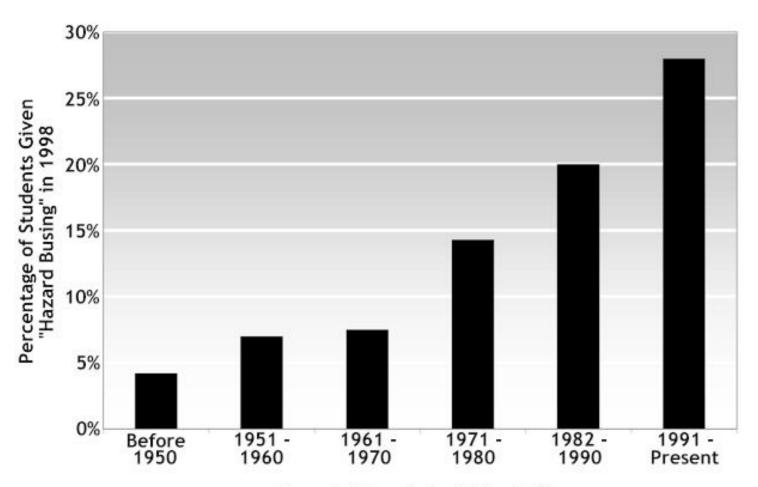








Where you put the school matters.



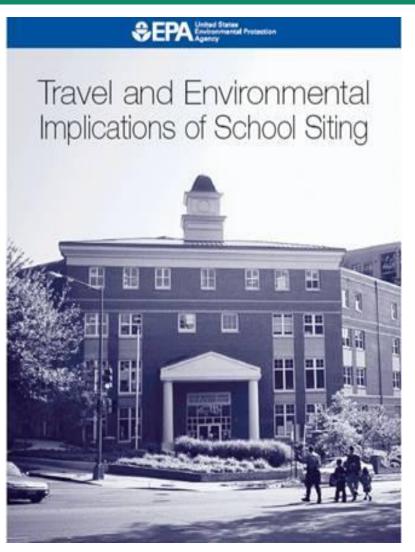


Decade When School Was Built



Where you put the school matters.

- Schools built close to students in walkable neighborhoods can:
 - Reduce traffic
 - Increase walking and biking
 - Reduce emissions









What Parents Say



SEARCH THIS JOURN

GO TO ADVANCED SE

HOME CURRENT ISSUE PAST ISSUES COLLECTIONS CME CAREERNET CONTACT US HELP

Institution: US EPA | Sign In as Individual

TABLE OF CONTENTS :

From the Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report

Barriers to Children Walking to or From School—United States, 2004

JAMA. 2005;294;2160-2162.

MMWR. 2005;54:949-952

1 figure, 1 table omitted

hyp

Walking for transportation is part of an active lifestyle that is associated with decreased risks for heart disease, diabetes,

Barrier? Distance to School

examines data from the 2004 ConsumerStyles Survey and a follow-up recontact survey to describe what parents report as b children aged 5-18 years walking to or from school. Distance to school was the most commonly reported barrier, followed by danger. Comprehensive initiatives that include behavioral, environmental, and policy strategies are needed to address these the percentage of children who walk to school.



Bigger Schools

- 1930 = 262,000 school facilities
- 2002 = 91,000 school facilities
- Student population over the same time increased from 28 million to 53.5 million.



Dorman High School in Spartanburg, SC





Bigger Schools



- 1,400+ students, 120 acres
- Weddington Elementary/Middle





Mandatory Minimum Acreage



Topic: State Acreage Policies Issue Tracker: Janell Weihs Date Filed: September 2003

School Site Size — How many acres are necessary?

In recent years one of the most discussed topics regarding school construction is that of appropriate acreage for sing sore indicatilities. This su question that needs to be addressed for new schools, but for renovation and/or addition projects as well. Many factors need to be considered wit question of acreage. These include, but are not limited to the number of students; the grades to be housed sort the educational programs and services its requirements/including physical education programs, parking, forestation or reforestation, conjugan and set-backs, storm water management, and issure, and recreational events. Very often there are state, school district, and/or local povernment size ize requirements, guidelines, or standards considered. These entitles may have varying opinions, methodologies, and recreational events on its ize requirements, guidelines, or standards.

Although the Council of Educational Facility Planners (CEFPI) is not a "standards" setting organizations, the Council does publish guidelines on various educational facility planning. Many states that do provide acreage and other design specifications have formulas that are similar to the CEFPI recovere published in past editions of The Guide for Planning Educational Facilities. These recommendations are being carefully reviewed as the new editions are being carefully reviewed as the new editions are being carefully reviewed as the new editions are commendations and recommendations are considered as the property of the property of

Elementary Schools = 10 acres plus 1 acre for every 100 students; Junior High/Middle Schools = 20 acres plus 1 acre for every 100 students; Senior High Schools = 30 acres plus 1 acre for every 100 students.

In this report, no attempt has been made to either evaluate the published documents or determine how a state implements the access grownus. Add does not identify coal district or governmental policies that may vary from the figures listed for a specific state. Most states with vost states with own of the state state of the published requirements, guidelines or standards, and often differentiate between existing facilities have formulas that make formulas that make internal state them assume amount of state funding available and allow district to locally find acreage beginned here to state funding available and allow districts to locally find acreage beginned the site sit accompanying chart. In other cases a state might approve a site smaller than what is specified in the chart is based upon the submission of a request well-documented in clinical finds. For standards, please contact the SI Education or school building authority in your state. Please contact vour local school district for additional information and policies affecting the size designed in the chart is designed authority in your state. Please contact vour local school district for additional information and policies directing website.

With the assistance of Barbara Kent Lawrence, Ed.D., educational consultant, CEFPI staff collected this data from state facility reports, manuals and c legislation, and verified it through direct contact with personnel from state educational agencies and practitioners. Dr. Kelvin Lee, Ed.D., Suprison, and Vest School, and Yels Sender Ed.D. educational facilities consultant also deserve recombilion and thanks for their sissiance in develop

All information in the table was collected from state facility reports and manuals, and verified through direct contact with personnel from state educat practitioners. For additional information, details, and/or procedures regarding school site size requirements, guidelines, or standards in your state. To recommend revisions and additions to the table, please collectively. This document may not be reproduced or distributed without providing appropriate reference to The Council of Educational Facility Penanct CEPPI.

State	Contact Info	Formulas for School Site Analysis	Comments	Document(s)
Alabama	School Architect & Facilities (334) 242-9731 http://www.asides.adu/text/sections/ section_detail.asp?asction=66&menu = Sections&footer=sections	Elementry School (K-6, and most not cortain a grade above 8). Base of 5 screep bus one are for every (10 subdents Middled School (4-9, but not including both grades 4 and 19). Base of 10 acres plus one acre for every (10 subdents Secendary School (6-1); but miss cortain a grade above 8). Base of 15 acres plus one acre for every (10) subdents for existing schools. Base of 30 acres plus one acre for every (10) subdents for people of 500 acres plus one acre for every (10) subdents for peoples dischools.	The state architect referred to the specifications as recommendations only.	Construction Requirements for County and Public Schools
Alaska	Department of Education & Early Development Facilities (907) 465-2785 http://www.edu.state.ak.us/ facilities/	Elementary = 10 acres plus one acre for every 100 students Middle = 20 acres plus one acre for every 100 students High = 30 acres plus one acre for every 100 students K-12 = 20 acres plus one acre for every 100 students For very small schools: 4 acres = 10-25 students; 6 acres = 26-50 students; 8 acres = 50-99 students	No acreage requirements are regulated. Specifications are recommendations only, and are applied to the state share of funding.	Site Selection Criteria and Evaluation Handbook (1997)
Arizona	School Facilities Board (602) 542-6501 http://www.sfb.state.az.us/	Elementary = up to 8-18 acres Middle/Junior = up to 18-36 High School = up to 30-70	Acreage guidelines range based upon student capacity and serve for new construction only. Recommendations are not listed in the Rules and Policies.	Arizona School Facilities Board Rules a Policies
Arkansas	Department of Education (501) 682-4261 http://arkedu.state.ar.us/ administrators/077.html	No acreage recommendations made		Arkansas Department of Education Ru and Regulations Governing the Minim Schoolhouse Construction Standards
California	School Facilities Planning Division (919) 322-2470 http://www.sche.ca.gov/facilities/	Grades K-6 400 students = 9.6 acres 700 students = 13.8 acres 700 students = 13.8 acres 600 students = 17.6 acres 600 students = 17.6 acres 600 students = 200 acres (with track facilities) 900 students = 200 acres (with track facilities) 1200 students = 201 acres (with track facilities) 1200 students = 23.1 acres (with track facilities) 1200 students = 3.1 acres 1200 students = 23.1 acres 1200 students = 24.7 acres	Alternative solutions to acreage recommendations are provided. If a school site is less than the recommended acreage required, the district shall demonstrate how the facilities will accommedate an adequate education	Guide to School Site Analysis and Development, 2000 School Site Selection and Approval Guide Small School Site Policy Merno (20
Colorado	Department of Education (303) 866-6600 http://www.cde.state.co.us/ index_finance.htm	The state does not provide any recommendations for school facilities.	Jefferson County has developed comprehensive guidelines for their facilities, which do address acreage requirements.	
Connecticut	School Facilities Unit (860) 713-6490 http://www.state.ct.us/sde/dgm/sfu/ index.htm	Elementary = 10 acres plus1 acre for each 100 students* Middle = 15 acres plus1 acre for each 100 students* High = 20 acres plus1 acre for each 100 students* * of the projected enrollment (8 years from the application date)	Site allowances refers to the maximum amount the state will consider funding and does not restrict local districts to exceed the acreage allowance or obstruct the district to use a smaller site.	Regulations of the State Board of Education Concerning School Construction Grants
Delaware	Department of Education (302) 739-4601 http://facilitymet.doe.k12.de.us/ sitenet/default.asp	Elementary = 10 acres plus 1 acre for every 100 students of school capacity Middle/Junior High = 20 acres plus 1 acre for every 100 studerts of school capacity High School = 30 acres plus 1 acre for every 100 students of school capacity	Specifications are minimum recommendations only, but "there is probably no real substitute for sufficient size." Options to consider for sites that do not meet the minimum acreage recommendation are provided.	School Construction Technical Assista Manual
Florida	Office of Educational Facilities (850) 245-0494 http://www.firn.edu/doe/edfacil	Guidelines provide detailed information about the site but do not address acreage guidelines.	Size specifications refer to the spaces in the building(s) and the number of spaces allowed according to enrollment.	State Requirements for Educational Facilities

www.cefpi.org/pdf/state_guidelines.pdf





Mandatory Minimum Acreage

- EPA commissioned the Council of Educational Facility Planners International to do a study on state policies.
- 27 states have <u>some</u> minimum acreage requirement.

Minnesota

Minnesota Department of Education, Facilities and Organization (651) 582-8828 http://education.state.mn.us/stellent/ groups/public/documents/ translatedcontent/pub_intro_ finance_facil.jsp Elementary School = 10-15 acres plus *
K-8 or Middle Level School = 25-35 acres plus *
K-12 School or Small High School = 35-40 acres plus *
Large High School (+2000 students) = 60 acres plus *
Campus (two or more schools) = Combine site sizes plus *
*All Schools = 1 additional acre for each 100 students of estimated student enrollment and community use/partnership program capacity, including possible additions.





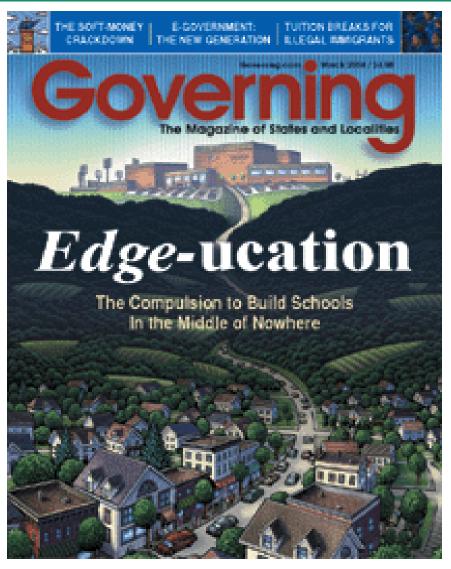
Mandatory Minimum Acreage

- EPA School Siting Guidelines' recommendation to states and tribes regarding mandatory minimum acreage requirements:
 - No minimum number of acres for school sites.





Schools Located Far From Students



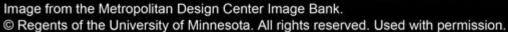






Schools Located Far from Students









Existing Schools - Neglected or Demolished







Existing Schools - Neglected or Demolished



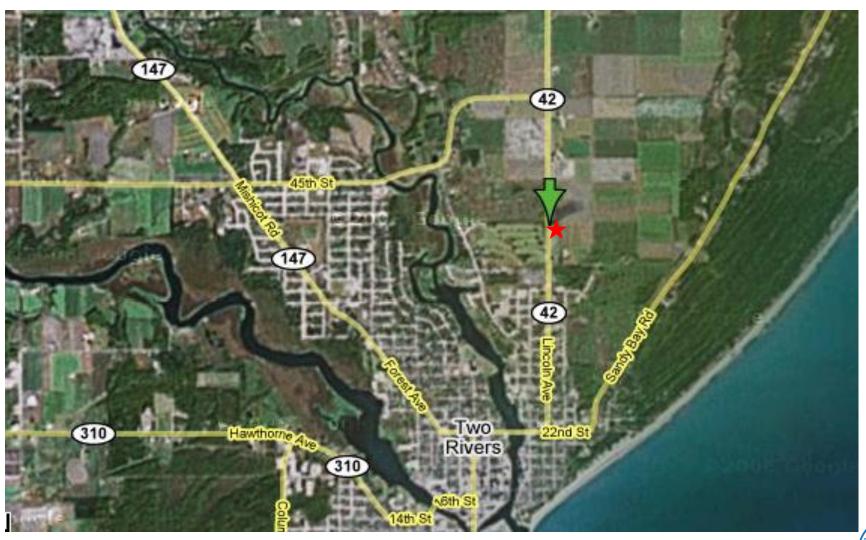






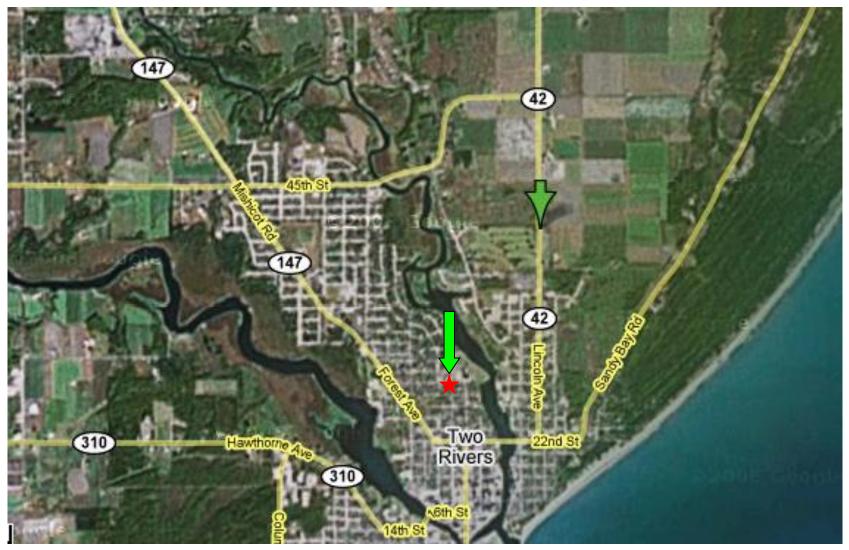


Location of New School





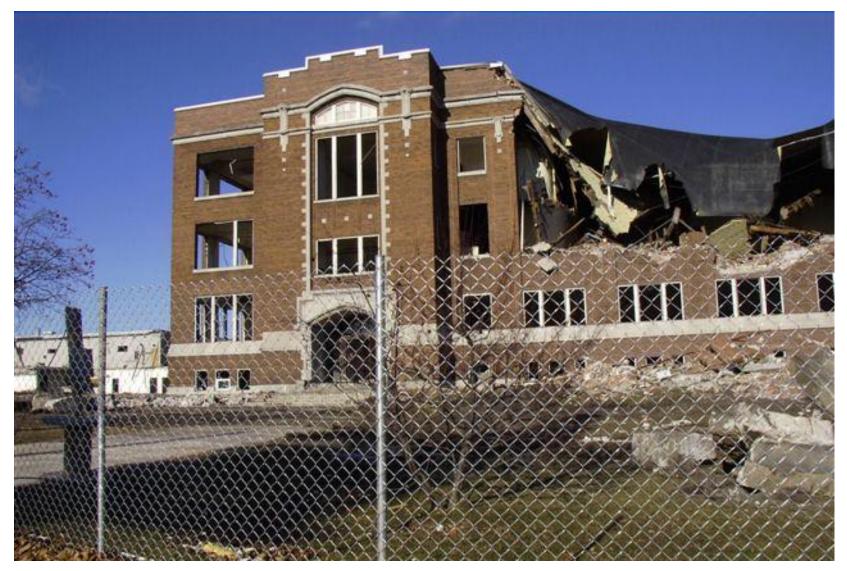
Location of Old School







Existing Schools - Neglected or Demolished



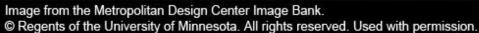






Unwalkable Locations









Unwalkable Locations

- A pedestrian hit at 40 mph has an 85% chance of being killed.
- At 20 mph, the fatality rate is only 5%.

Source: FHWA, Pedestrian Facilities Users Guide, 2002























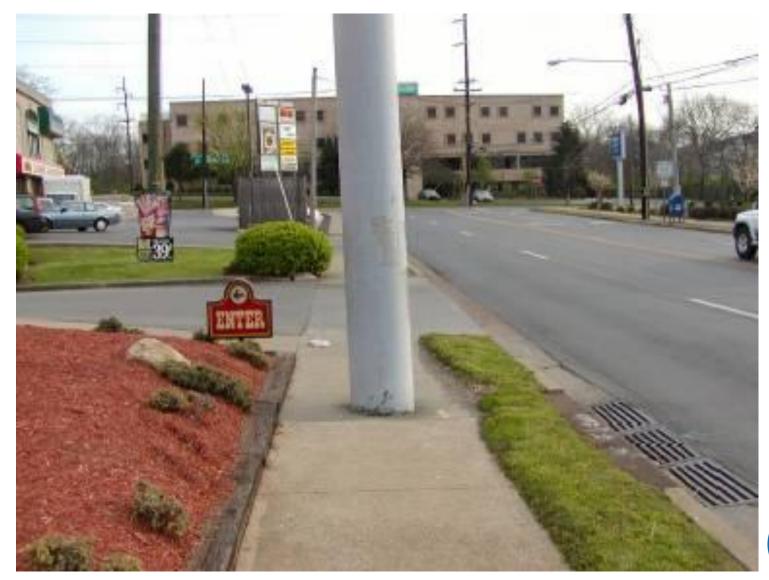












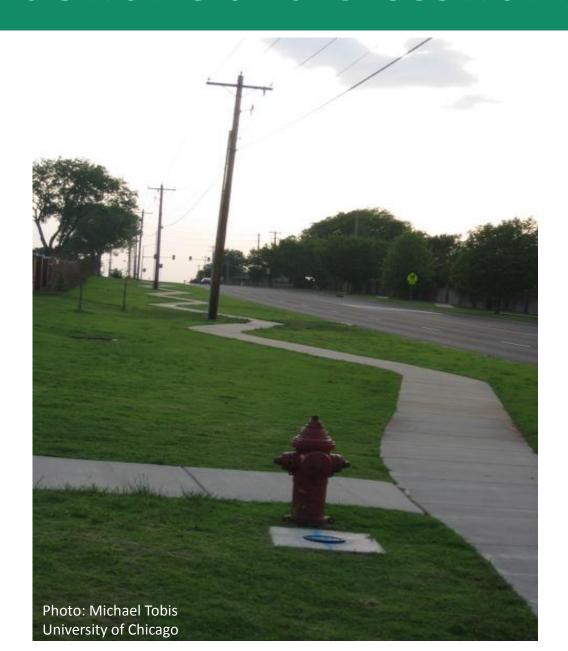










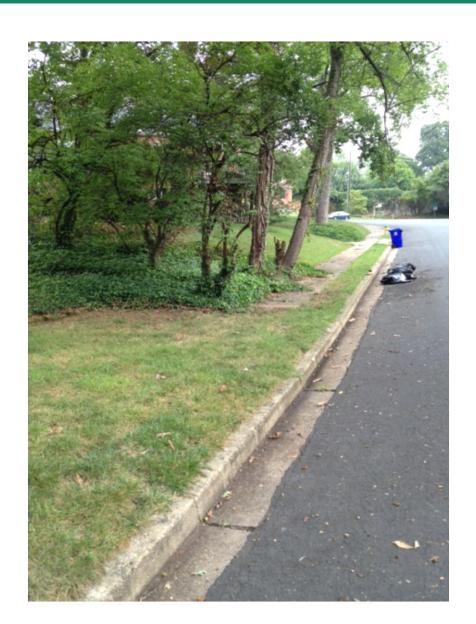
















Separate Parallel Universes







School siting is often not coordinated with community planning.

Side impacts = demand for new:

- Roads
- Traffic signals
- Sewer lines
- Utilities
- Other infrastructure and services





Perceptions and policies are shifting.







Communities
 are rethinking
 school
 investment
 strategies.





Kevin Hoffman/The Mercury

Pottstown School Board challenger Michele Pargeon, above, greets voters in front of a sign telling voters to stop the \$54 million proposed mega campus in Pottstown. At right, the five challengers celebrate their victory. From left are Richard Huss, Julia Wilson, Nat White, Dennis Wausnock and Michele Pargeon smile and talk about the favorable results as they come in.

Daniel P. Creighton/The Mercury



Challengers overwhelm incumbents to win seats on Pottstown School Board

By Evan Brandt ebrandt@pottsmerc.com

POTTSTOWN — Voters swept from office Tuesday the incumbent school board team that had advocated closing the borough's five elementary schools

Instead, voted chose by a roughly 4-to-1 margin the team that championed saving those schools.

Unofficial results tabulated at Republican campaign headquarters showed a whopping 78 percent of the voters favoring the challengers — Dennis Wausnock, Julie Wilson, Michele Pargeon, Rick Huss and Nat White.

They handily defeated the team of one-term incumbents led by Barry Robertson, James Smock, Philip Thees, Bonita Barnhill and Cathy Skitko.

Both teams "cross-filed" for both the Republican and the Democratic line on the November ballot.

The challengers' overwhelming majority on both ballot lines makes the November election a foregone conclusion.

"I got fired, I understand that," Robertson said from his home after the results had become obvi-

"Of all the elections I've been in, this is the most exciting," said Huss, a former school board member who "came out of retirement because the issue meant so much to me" to run for a fourth time.

"It was exciting because the people spoke," Huss said

What they spoke about was the rejection of the (See POTTSTOWN SCHOOL BOARD on A3)







- Former Stapleton Airport, Denver, CO
- 7.3 square miles
- 12,000 homes and apartments
- 3 million sq. ft. of retail space, 10 million sq. ft. of office space



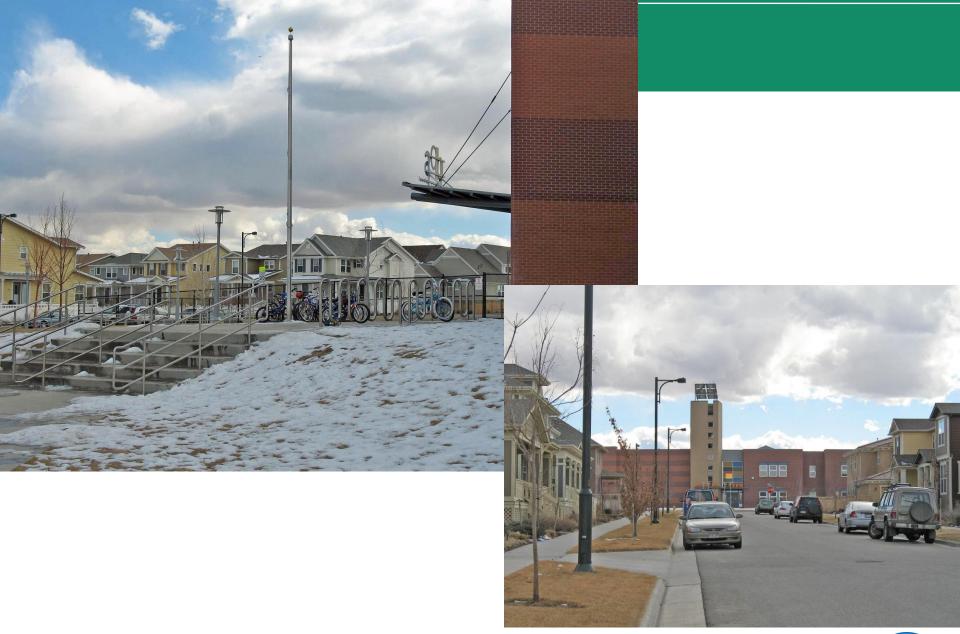


Westerly Creek Elementary School

Odyssey Charter School

















Design Guidelines for Pedestrian-Friendly Neighborhood Schools







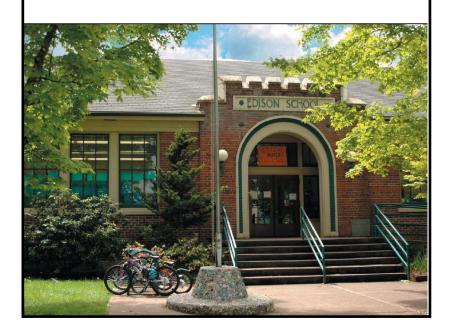


DOVER, KOHL & PARTNERS

CHAEL, COOPER & ASSOCIATES P.A.

PLANNING FOR SCHOOLS & LIVEABLE COMMUNITIES

The Oregon School Siting Handbook



http://cms.oregon.gov/LCD/TGM/docs/schoolsitinghandbook.pdf



www.raleighnc.gov/publications/Planning/Guides,_Handbooks_an d Manuals/School Design Guidelines.pdf

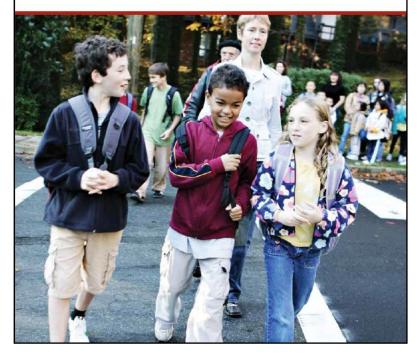


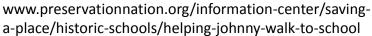
NATIONAL TRUST FOR HISTORIC PRESERVATION

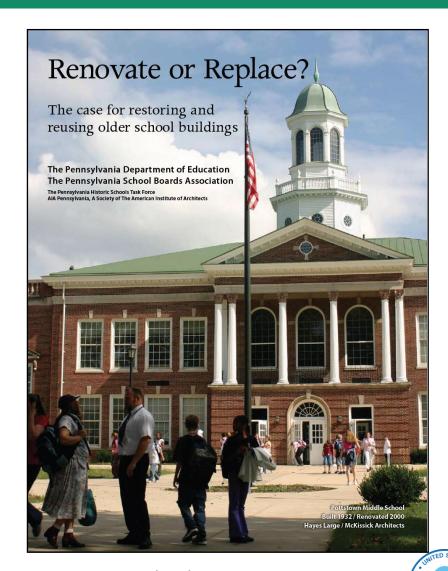
Helping Johnny Walk to School

Policy Recommendations for Removing Barriers to Community-Centered Schools

BY RENEE KUHLMAN







www.saveourlandsaveourtowns.org













http://www.saferoutespartnership.org

http://www.saferoutesinfo.org

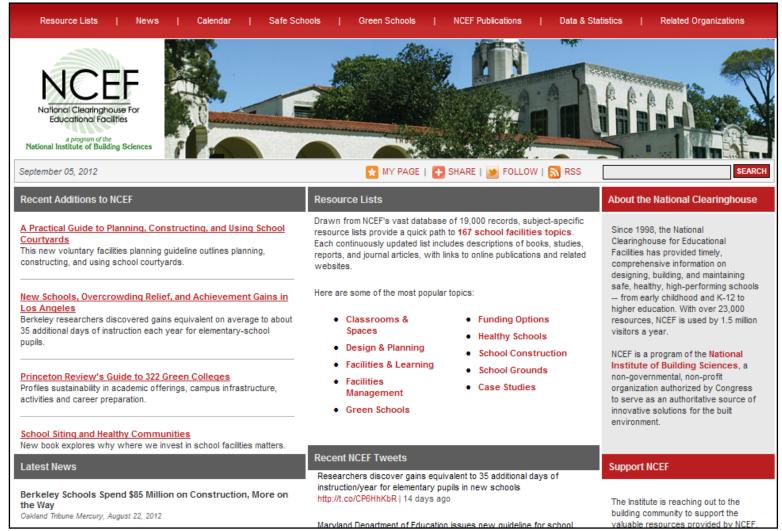




- The Georgia Conservancy, U.S. Green Building Council-Georgia, and Mothers & Others for Clean Air are working with a team of experts to develop a school siting curriculum for school boards and school system leaders.
- The curriculum uses EPA's <u>School Siting Guidelines</u> and other public health, planning, architectural, and environmental information to inform school siting decision-making.
- For more information, contact Suganthi Simon, EPA Region 4, simon.suganthi@epa.gov.











How to Access the EPA Guidelines

School Siting Guidelines Website

The guidelines are available at www.epa.gov/schools/siting

Ordering a Hard Copy

To request a hard copy of the School Siting Guidelines (EPA-100-K-11-004), contact EPA's National Service Center for Environmental Publications:

Internet: <u>www.epa.gov/nscep</u>

Phone: (800) 490-9198

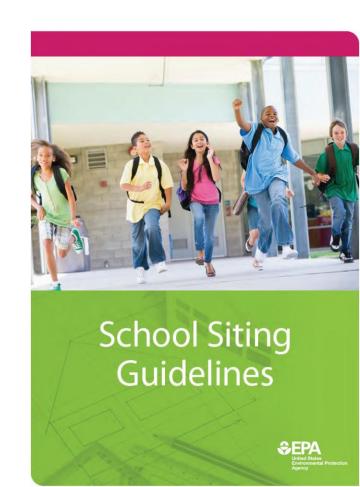
E-mail: <u>nscep@bps-lmit.com</u>

• Fax: (301) 604-3408

US Mail: U.S. EPA/NSCEP

P.O. Box 42419

Cincinnati, Ohio 45242-0419





EPA Schools Programs

- EPA has a number of programs designed to help schools and communities protect children's health.
- For information about EPA schools programs and school environmental health, visit epa.gov/schools.







Thank You!

My contact information:

Tim Torma torma.tim@epa.gov 202-566-2864



